REMARKS

Upon entry of this amendment, claims 1, 3-12 and 14-18 are all the claims pending in the application. Claims 2 and 13 are canceled by this amendment. Claim 18 is added as a new claim. No new matter has been added.

Applicants note that a number of editorial amendments have been made to the specification and abstract for grammatical and general readability purposes. No new matter has been added.

Applicants also note that the present application claims priority under 35 U.S.C. § 119. The Examiner, however, has not acknowledged the claim for priority or acknowledged receipt of the certified copy of the priority document. Applicants are enclosing a copy of the declaration, and a copy of the filing receipt, each of which indicates that foreign priority is claimed for the present application. In addition, Applicants are enclosing a copy of the front page of the certified copy of the priority document, and a copy of the stamped postcard from the PTO which indicates that the certified copy of the priority document was received by the PTO.

In view of the foregoing, Applicants kindly request that the Examiner acknowledge the claim for foreign priority and confirm that the certified copy of the priority document has been received.

I. Claim Rejection under 35 U.S.C. § 112, second paragraph

The Examiner has rejected claim 4 under 35 U.S.C. § 112, second paragraph as being indefinite. Applicants have amended claim 1 so as to include the feature of "a stream switchable position". Accordingly, Applicants submit that the feature in claim 4 drawn to "the stream

switchable position" now has proper antecedent basis. Accordingly, Applicants respectfully request that the rejection be reconsidered and withdrawn.

II. Claim Rejection under 35 U.S.C. § 102

The Examiner has rejected claims 12-17 under 35 U.S.C. § 102(e) as being anticipated by Shiomoto et al. (U.S. 6,584,120).

Claim 12, as amended, is drawn to a multiplexer including a position detection unit operable to detect a switchable position in a stream to be multiplexed, at which position a decoding process for the stream can be interrupted, and operable to output a signal indicating a decoding switchable position; and a multiplexing unit operable to multiplex respective streams with the signal indicating the switchable position. Applicants respectfully submit that Shiomoto fails to disclose or suggest at least these features of claim 12.

Shiomoto discloses digital satellite broadcasting system 1 having a transmitter 2 and a receiver 4 (see Fig. 2 and col. 5, lines 4-6). The transmitter includes three packetized elementary stream generators (PES stream generators) 10_1, 10_2 and 10_3 which each send a PES stream to a multiplexer 11 (see Fig. 2). The multiplexer 11 disassembles the PES streams into transport packets and outputs them as a transport streams (see Fig. 2 and col. 5, lines 27-24). As shown in Fig. 2, the transport streams are ultimately transmitted by a transmission antenna 14 to the receiver 4.

The receiver 4 includes a reception antenna 16 and an integrated receiver decoder (IRD) 17 (see Fig. 2). The integrated receiver decoder 17 demodulates and demultiplexes the received data into audio and video, and then decodes the audio data with an audio decoder 89 and decodes

the video data with a video decoder 87 (see Fig. 5). The decoded data is then output as video signals and audio signals which can be reproduced on a television receiver 18 (see Fig. 2 and col. 6, lines 24-34).

The multiplexer described above is shown in detail in Fig. 4 of Shiomoto. The multiplexer includes an input controller 103 for storing the PES streams 101 and three multiplex buffers 102_1, 102_2 and 102_3 for temporarily storing the PES streams 101 (see col. 6, lines 43-48). A transport packet generator 109 is provided which generates a header for each of the three data streams 101 (see col. 6, lines 53-54).

Further, as shown in Fig. 4, the multiplexer includes a channel selection controller 113 which controls a switch 114 so as to select a control data generator 105, a null packet generator 106, or one of the multiplex buffers 102_1, 102_2 and 102_3 (see col. 7, lines 37-41). If any of the multiplex buffers 102_1, 102_2 and 102_3 is selected, the switch 114 is controlled to read from the transport packet header generator 109 before reading from the multiplex buffers 102_1, 102_2 and 102_3 (see col. 7, lines 41-45).

In view of the foregoing, it is clear that while Shiomoto discloses a switch 114 which is utilized to select one of a plurality of multiplex buffers based on an instruction signal from a channel selection controller 113, Shiomoto does not disclose or suggest the ability to detect a switchable position in a stream and output a signal indicating a decoding switchable position; and also does not suggest a multiplexing unit which multiplexes respective streams with the signal indicating the switchable position, as recited in claim 12.

Accordingly, Applicants submit that claim 12 is patentable over the cited prior art, an indication of which is respectfully requested. If the Examiner maintains the rejection of claim 12 based on Shiomoto, Applicants kindly request that the Examiner particularly point out the structure and passages in Shiomoto which are being relied upon as corresponding to each of the above discussed features.

As noted above, claim 13 has been canceled by this amendment. Claim 14 depends from claim 12 and is therefore considered patentable at least by virtue of its dependency.

Claim 15 has been amended to recite similar features as those discussed above regarding claim 12. For example, claim 15 recites the feature of detecting a switchable position in a stream to be multiplexed, at which position a decoding process for the stream can be interrupted, and outputting a signal indicating a decoding switchable position; and unifying divided stream parts by the respective streams to generate the multiplexed stream which are multiplexed with the signal indicating the decoding switchable position.

Accordingly, for similar reasons as discussed above regarding claim 12, Applicants submit that Shiomoto does not disclose or suggest the features recited in claim 15. Thus, Applicants submit that claim 15 is patentable over the cited prior art, an indication of which is respectfully requested. Claim 16 depends from claim 15 and is therefore considered patentable at least by virtue of its dependency.

Claim 17 recites the feature of adding to a head of each of the divided stream parts header information for identifying a corresponding stream, wherein a flag is added to header information corresponding to a divided stream part, an end position of which matches with a switchable

position of the stream, for indicating that the end position matches with the switchable position of the stream. Applicants respectfully submit that Shiomoto fails to disclose or suggest at least this feature of claim 17.

As discussed above, Shiomoto discloses a multiplexer having a switch 114 which selects one of a plurality of multiplex buffers based on an indication signal from a channel selection controller 113. Further, as noted above, Shiomoto discloses a transport packet header generator 109 which is read from prior to reading from any of the multiplex buffers (see col. 7, lines 41-45). The information generated by transport packet header generator 109 includes a packet ID and an adaption field control signal (see col. 7, lines 49-52).

Accordingly, while Shiomoto discloses the ability to append to a packet header to the PES streams 101, wherein the packet header includes a packet ID and adaption field control signal, Applicants respectfully submit that there is absolutely no disclosure in Shiomoto regarding a flag that is added to header information for indicating that an end position matches with a switchable position of the stream, as recited in claim 17.

Thus, Applicants submit that claim 17 is patentable over the Shiomoto, an indication of which is respectfully requested. If the Examiner maintains this rejection, Applicants kindly request that the Examiner particularly point out the structure and passages in Shiomoto which are being relied upon as corresponding to the above discussed features.

III. Claim Rejection under 35 U.S.C. § 103(a)

The Examiner has rejected claims 1-11 under 35 U.S.C. § 103(a) as being unpatentable over Fujinami (U.S. 5,537,148) in view of Shiomoto et al.

Claim 1, as amended, recites the feature of a stream selection unit operable to select one of a plurality of separated streams and output the selected stream to a decoding unit, wherein the stream selection unit has a position detection unit operable to detect a stream switchable position in a stream being subjected to the decoding process, and wherein the stream selection unit performs the stream selection such that the decoding process for the stream which is being processed is interrupted at the stream switchable position.

The Examiner recognizes that Fujinami does not disclose or suggest such features. In an attempt to cure this deficiency, the Examiner applies Shiomoto and alleges that it would have been obvious to combine the teachings of Fujinami and Shiomoto so as to arrive at the claimed invention. Applicants respectfully disagree.

Fujinami discloses a video and audio data demultiplexer 5 which receives data from a drive unit 1 (see Figs. 1A and 1B). The drive unit 1 reproduces data recorded on an optical disk and supplies this data to a demodulator 2, wherein the demodulated data is transferred to a data separator 21 of the data demultiplexer 5 (see Fig. 1A).

The data separator 21 separates the video data from the audio data, and supplies the separated video and audio data to a video code buffer 6 and audio code buffer 8, respectively (see Fig. 1B). The data in the video code buffer 6 is read and supplied to a video decoder 7 which outputs a video signal, and the data in the audio code buffer 8 is read and supplied to an audio decoder 9 which outputs an audio signal (see Fig. 1B).

As discussed above, Shiomoto disclose a multiplexer which includes a switch 114 that can select one of a plurality of multiplex buffers (see Fig. 4). After multiplexing takes place at

the transmitter 2, the data is sent to a receiver 4 which includes an integrated receiver decoder 17 having a video decoder 87 and an audio decoder 89 (see Fig. 5).

Thus, while a switch 114 is included in the multiplexer of Shiomoto, as discussed above, neither the switch 114 nor any other type of switch is included in the decoder 17 (see Figs. 4 and 5). Instead, as clearly shown in Fig. 5 of Shiomoto, the demultiplexer 84 separately provides the video data to the video decoder 87 and the audio data to the audio decoder 89. Indeed, as is clear from Fig. 1B of Fujinami and Fig. 5 of Shiomoto, both of these references utilize a similar decoder in which video data is transmitted to a video decoder and audio data is transmitted to a separate audio decoder.

Thus, while Shiomoto discloses a multiplexer having a switch 114 that enables one of a plurality of multiplex buffers to be selected, there is simply no teaching in Shiomoto or Fujinami which would suggest providing a decoder with a stream selection unit to select one of a plurality of separated streams and output the selected stream to a decoding unit, as recited in claim 1.

Moreover, as there is no suggestion in the cited prior art to provide a decoder with a stream selection unit, it is clear that the cited prior art also fails to disclose or suggest a stream selection unit having a position detection unit operable to detect a stream switchable position in a stream being subjected to the decoding process, wherein the stream selection unit performs the stream selection such that the decoding process for the stream which is being processed is interrupted at the stream switchable position, as recited in claim 1.

Further, Applicants submit that providing the decoder of Fujinami with a switch 114, as taught by Shiomoto, would actually impair or render inoperable the decoder of Fujinami. In

particular, Applicants note that the decoder of Fujinami requires a separate video decoder 7 and audio decoder 9, wherein the video decoder outputs a video signal and the audio decoder outputs a separate audio signal. Accordingly, if a switch 114 as disclosed by Shiomoto was provided in the decoder of Fujinami, both the video data and audio data output from the video code buffer 6 and the audio code buffer 8 of Fujinami would be sent to the same decoder, thus preventing the output of a separate video signal and audio signal.

Accordingly, because the modification to Fujinami proposed by the Examiner would render Fujinami's decoder inoperable for its intended purpose, Applicants submit that Fujinami clearly teaches away from the proposed modification proposed by the Examiner. As stated in MPEP 2143.01, if a proposed modification would render the prior art invention being modified inoperable for its intended purpose, then there is no suggestion or motivation to make the proposed modification.

Based on the foregoing, Applicants submit that claim 1 is patentable over the cited prior art, an indication of which is respectfully requested. As noted above, claim 2 has been canceled by this amendment. Claims 3 and 4 depend from claim 1 and are therefore considered patentable at least by virtue of their dependency.

Regarding claim 5, Applicants submit that this claim is patentable for similar reasons as discussed above regarding claim 1. Claim 5 is drawn to a decoding method for carrying out a decoding process for a multiplexed stream including selecting one of plural separated streams such that a target of a decoding process is converted from one stream to another stream, wherein the selecting comprises detecting a stream switchable position in a stream being subjected to the

decoding, and performing the selecting such that the decoding for the stream which is being processed is interrupted at the stream switchable position.

For similar reasons as discussed above regarding claim 1, Applicants submit that the Fujinami and Shiomoto fail to disclose, suggest or otherwise render obvious these features of claim 5. As noted above, the switch 114 of Shiomoto is included in the multiplexer, not in the decoder, and further, Applicants submit that providing the decoder of Fujinami with a switch would render Fujinami's device inoperable for its intended purpose. Thus, Applicants submit that claim 5 is patentable over the cited prior art, an indication of which is respectfully requested.

Regarding claim 6, Applicants submit that this claim is also patentable over the cited prior art for similar reasons as discussed above regarding claim 1. Claim 6 is drawn to a decoder which receives a multiplexed stream and carries out a decoding process for each stream in the multiplexed stream, wherein the decoder includes a stream conversion unit operable to convert the multiplexed stream into a multiplexed stream composed of second multiplexing units.

For similar reasons as discussed above regarding claim 1, Applicants submit that the Fujinami and Shiomoto fail to disclose, suggest or otherwise render obvious these features of claim 6. For example, in both Fujinami and Shiomoto, the respective video decoder and audio decoder receive demultiplexed data (see Fig. 1B of Fujinami and Fig. 5 of Shiomoto). Indeed, neither reference even remotely suggests that the respective video decoder or audio decoder disclosed therein could receive a multiplexed stream, as recited in claim 6.

Accordingly, as the decoder of the cited prior art does not receive a multiplexed signal, it is clear that the cited prior art also does not disclose or suggest the feature of a decoder including

a stream conversion unit operable to convert the multiplexed stream into a multiplexed stream composed of second multiplexing units, as recited in claim 6.

In view of the foregoing, Applicants submit that claim 6 is patentable over the cited prior art, an indication of which is respectfully requested. Claim 7 depends from claim 6 and is therefore considered patentable at least by virtue of its dependency.

Regarding claim 8, Applicants submit that this claim is also patentable over the cited prior art for similar reasons as discussed above regarding claims 1 and 6. Claim 8 is drawn to a decoder which receives a multiplexed stream and carries out a decoding process for each stream in the multiplexed stream, wherein the decoder includes a stream conversion unit operable to add switch position information indicating a switch position of each stream to the multiplexed stream to perform conversion of the multiplexed stream.

Accordingly, for similar reasons as discussed above, Applicants submit that the Fujinami and Shiomoto fail to disclose, suggest or otherwise render obvious these features of claim 8. For example, neither Fujinami and Shiomoto suggests that the respective video decoder or audio decoder receives a multiplexed stream, as recited in claim 8. Moreover, as neither reference teaches a decoder receiving a multiplexed stream, it is clear that the feature of the stream conversion unit operable to add switch position information indicating a switch position of each stream to the multiplexed stream to perform conversion of the multiplexed stream is also not taught or suggested by the cited prior art.

In view of the foregoing, Applicants submit that claim 8 is patentable over the cited prior art, an indication of which is respectfully requested. Claim 9 depends from claim 8 and is therefore considered patentable at least by virtue of its dependency.

Regarding claims 10 and 11, Applicants submit that these claims are also patentable for similar reasons as discussed above. Claims 10 and 11 are drawn to a decoding method for receiving a multiplexed stream which is obtained by switching each of plural streams. Claim 10 recites the feature of converting the multiplexed stream into a multiplexed stream composed of second multiplexing units which are obtained by gathering a plurality of the first multiplexing units together, and claim 11 recites the feature of adding switch position information indicating a switch position of each stream to the multiplexed stream to perform conversion of the multiplexed stream.

Accordingly, for similar reasons as discussed above, Applicants submit that the cited prior art fails to disclose, suggest or otherwise render obvious these features of claims 10 and 11. For example, neither Fujinami and Shiomoto suggests that a respective video decoder or audio decoder receives a multiplexed stream, but instead, both disclose that demultiplexed data is received.

Moreover, as neither reference teaches a decoder receiving a multiplexed stream, it is clear that the feature of converting the multiplexed stream into a multiplexed stream composed of second multiplexing units which are obtained by gathering a plurality of the first multiplexing units together, as recited in claim 10, and the feature of adding switch position information indicating a switch position of each stream to the multiplexed stream to perform conversion of

the multiplexed stream, as recited in claim 11, is also not taught or suggested by the cited prior art. In view of the foregoing, Applicants submit that claims 10 and 11 are patentable over the cited prior art, an indication of which is respectfully requested.

IV. New Claim

Claim 18 is added as a new claim.

Claim 18 recites the features of a stream selection unit operable to select one of the plural multiplexing units and output the selected one of the plural multiplexing units to a decoding unit, thereby converting a decoding target in the decoding unit from one multiplexing unit to another multiplexing unit, wherein said stream selection unit performs the multiplexing unit selection such that the decoding process for the multiplexing unit which is being processed is interrupted at the stream switchable position.

Applicants respectfully submit that the cited prior art, either alone or in combination, fails to disclose, suggest or otherwise render obvious at least these features recited in claim 18.

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited.

If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Makoto HAGAI et al.

THE COMMISSIONER IS AUTHORIZED TO CHARGE ANY DEFICIENCY IN THE FEE FOR THIS PAPER TO DEPOSIT ACCOUNT NO. 23-0975.

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October 29, 2004